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fr**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: A. FINESTONE et al.

Confirmation no. 1249

Application No.: 10/038,293

Group Art Unit: 1772

Filed: January 2, 2002

Examiner: W. Aughenbaugh

For: PLASTIC-PAPER-PLASTIC  
LAMINATE SHEETING

Attorney Docket No.: 82017-1399

**RULE 132 DECLARATION OF ARNOLD B. FINESTONE, PH.D.**Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

1. I am a US citizen residing at 2400 Presidential Way, West Palm Beach, Florida. I have a Ph.D. in Polymer Chemistry and over 35 years experience in the field of plastic film products with special experience in paper-plastic lamination for over 15 years. I am submitting this declaration as opinion evidence of what is known by a skilled artisan in this field.

2. I am a co-inventor of this application as well as that of US patent 5,244,702. I have reviewed the final office action as well as US patent 3,986,640 to Redmond which was cited to reject the present claims.

3. The present application relates to a flexible plastic-paper-plastic laminate sheeting that is capable of being converted by conventional paper processing equipment into envelopes, bags and other dilatable container products. This laminate sheeting includes a printable paper sheet having inside and outside surfaces; a first reinforcing film of synthetic oriented plastic material having an inner surface treated to increase the surface energy of the film and its affinity to adhesives and being cold-laminated by a water-based adhesive to the inside surface of the paper sheet; and a second reinforcing film of synthetic oriented plastic material having an inner surface treated to increase the surface energy of the film and its affinity to adhesives and being cold-laminated by a water-based adhesive to the outside

surface of the paper sheet. A dilatable container product made from this laminate sheeting has moisture resistance and enhanced tear and burst strength compared to dilatable containers made from plastic coated cellulosic papers.

3. Redmond discloses certain materials for forming packages for flowable substances. These packages are formed by superimposing a sheet of a relatively flexible material over a sheet, web or card of a relatively stiff but flexible material and placing the flowable substance between the sheets. To enable the flowable material to be removed from the package, a cut is placed in the stiff material, so that when bending the stiff material it will rupture to allow the flowable substance to exit the package. After the stiff material is cut, Redmond teaches that it may be coated or covered with a sealant (col. 2 line 21), such as a plastic, a wax or a foil, which is applied as a liquid to form a cover over the cut. This suggests that certain stiff materials may not need to be provided with a sealant, as the sealant is provided simply to form a seal to prevent wicking or seepage of the flowable substance through the cut.

4. In addition, Redmond teaches that the sealant "should be of a tensile strength which, when the stiff material is bent, will rupture at or closely adjacent to such cut" (Col. 2, line 21-34). Redmond further explains in the paragraph bridging columns 4 and 5 that the sealant "should be sufficiently weak, when the package is bent, so as to avoid interference with the rupture of the base 70 when the cut through or partially cut through base is bent or folded."

5. In my opinion, in order to properly function, Redmond's sealant cannot be of high strength. Col. 2, lines 45-61 disclose how the package is ruptured to dispense the product therein. The package is folded so that the cut, relatively stiff material ruptures the sealant at the cut to allow the package contents to be dispensed by squeezing or other applications of force. If the sealant were of high strength, it could not be punctured by the stiff material, so that the contents of the package could not be dispensed. This is why Redmond mentions that the sealant is a coating (i.e., wax), applied as a liquid, or as a covering of a sufficiently weak material (i.e., a thin plastic or foil) that can be punctured by the stiff material.

6. Redmond also discloses that the stiff material can be cardboard, fiberboard, paperboard, or a plastic (col. 4, lines 46 to 52), with a weak plastic such as polystyrene specifically mentioned (col. 2, line 35). These materials are not very hard or rigid, and when cut to facilitate fracture of the material, they will only cut and puncture a weak sealant, such as a coating or a thin sheet of foil or a low grade, unoriented plastic material. The stiff material cannot be too strong or highly rigid or else it will be difficult to break even with the cut lines. This in turn requires that the sealant be weak so that it can be punctured when the material fractures, rather than be fractured by the material itself.

7. Redmond does not disclose or teach the features of our invention. We utilize two reinforcing films of synthetic oriented plastic material that are adhesively cold-laminated by a water-based adhesive to an inner paper sheet. These materials cannot be used as sealants in Redmond's package. It is my opinion that Redmond teaches away from the use of thin oriented films or laminates in col. 1, lines 46-61, where he describes the problems of a container formed of such materials. Skilled artisans would realize that such sheets are preferably made of oriented plastics for strength. Furthermore, the skilled artisans would also understand that Redmond specifically teaches against the use of plastic and foil laminates for the same reason.

8. In direct contrast to Redmond's teachings, we utilize and actually require a high strength, oriented plastic material in our laminates. The oriented plastic films provide burst strength and tear resistance to the laminate sheeting and to container products made from the laminate sheeting.

9. During an interview with Examiner's Aughenbaugh and Nelson on September 11, 2003, I explained that the use of a high strength oriented plastic film in Redmond's package would be contrary to the package structure that Redmond is trying to achieve. In order to have an easy opening package, Redmond's sealant must break when the stiff material is bent and fractured along the cut lines, but an oriented film would have sufficient strength and flexibility to conform to the shape of the bent stiff material without fracturing or breaking, so that the contents of the package could not be dispensed. For these reasons, it is my opinion that a skilled artisan reading Redmond would be taught to use a wax or plastic coating or a weak film rather than an oriented plastic material to seal the cut lines.

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10. Our earlier patent (US 5,244,702) is directed to a plastic-paper or paper-plastic-paper laminate sheeting that is useful for envelopes or other dilatible container products. The combination of Redmond with the laminate of our earlier patent is not appropriate for the reasons discussed above, since Redmond's package would not very difficult to open if oriented plastic films or one of our patented laminates were used as the sealant. In addition, our patented laminates are made of paper-plastic or paper-plastic-paper, so that one or both outer surfaces of the laminate are made of paper. This would not provide a moisture resistant surface for the Redmond package, particularly since the stiff material is scored.

11. Furthermore, if one of our patented laminates was substituted for the sealant and stiff material of Redmond, the package would not be openable as taught by Redmond. First of all, one of the layers of the Finestone et al. laminates is paper, i.e., a flexible rather than stiff material as taught by Redmond. When laminated to a plastic film, a flexible material such as paper cannot be scored and then bent to break open the laminate. Even if there was some way of stiffening the paper, it would not be able to break the high strength oriented plastic film that is used in our patented laminates.

12. Accordingly, in my opinion, there is no relation between the Redmond and Finestone et al. patents that would lead one of ordinary skill in the art to the presently claimed invention.

13. I further declare that all statements made herein of my knowledge are true and all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Dated this 22th day of September, 2003.

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Arnold B. Finestone

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